[-]   a converging lens [(5)] placed downstream of the diaphragm [(4)] for

collimating the shaped light coming from the diaphragm [(4)] and projecting it onto the

reading zone portion.

Claim 2, line 2, delete "(5)";

Claim 2, line 3, delete "(4)";

Claim 2, line 4, delete "(4)".

Claim 3, line 2, delete "(2a)";

Claim 3, line 4, delete "(100a)".

Claim 4, line 2, delete "(2b)";

Claim 4, line 4, delete "(100b)";

Claim 4, line 5, delete "(100a)";

Claim 4, line 6, delete "(2a)".

Claim 5, line 2, delete "(3)".

Claim 6 *(Amended)* A device according to [Claims 3 and 5] claim 5, comprising at

least two first illuminating assemblies disposed symmetrically relative to the aiming axis

Z such that their respective optical emission paths identify a linear portion on the reading

zone, wherein the optical paths [(100a)] of the first illuminating assemblies [(2a)] are set,

relative to the axis Z, at an angle of $+\phi_v/2$ and $-\phi_v/2$, respectively, on the first reference

372873

plane XZ, and at an angle of $+\phi_H/2$ and $-\phi_H/2$, respectively, on the second reference plane YZ.

Claim 7 (Amended) A device according to [Claims 4 and 5] claim 5, comprising at least two second illuminating assemblies disposed symmetrically relative to the aiming axis Z such that their respective optical emission paths identify, jointly with the optical paths of the first illuminating assemblies, a quadrangular portion of the reading zone, wherein the optical paths [(100a)] of the second illuminating assemblies [(2a)] are set, relative to the axis Z, at an angle of $+\phi_V/2$ and $-\phi_V/2$, respectively, on the first reference plane XZ, and at an angle of $+\phi_H/2$ and $-\phi_H/2$, respectively, on the second reference plane YZ.

Claim 8 (Amended) A device according to [anyone of Claim 6 or 7] Claim 7, comprising at least a substantially tubular element [(20)] having an inclined upper surface [(21)] for accommodating the light source [(3)] such that the optical path [(100a, 100b)] of the illuminating assembly [(2a, 2b)] is inclined at angles of $\pm\phi_V/2$ and $\pm\phi_V/2$ relative to the axis Z.

Claim 9, line 2, delete "(9)";

Claim 9, line 3, delete "(100a, 100b)".

Claim 10 (Amended) A device according to [anyone of Claim 6 or 7] Claim 7, wherein each optical emission path [(100a, 100b)] of the first and second illuminating

assemblies [(2a, 2b)] comprises a first path length set, relative to the axis Z, at an angle of

$+\phi_V/2$ and $-\phi_V/2$ [(]and $+\phi_H/2$ and $-\phi_H/2[)]$, respectively, on the first [(second)] and second

reference [plane] planes XZ [(YZ)] and YZ, and a second path length set, relative to the

axis Z, at an angle of $+\phi_V/2$ and $-\phi_V/2$ and [(]$+\phi_H/2$ and $-\phi_H/2[)]$, respectively, on the first

[(second)] and second reference [plane] planes XZ [(YZ)] and YZ, and at an angle of

$+\phi_H/2$ and $-\phi_H/2$ [(] and $+\phi_V/2$ and $-\phi_V/2[)]$, respectively, on the second [(first)] and first

reference [plane] planes YZ [(XZ)] and XZ.

Claim 11 (Amended) A device according to [Claims 9 and 10] Claim 10, further

comprising at least one optical deflection prism disposed on the optical emission path,

wherein the optical deflection prism [(9)] is effective to deflect the second path lengths

through angles of $\pm\phi_H/2$ and [(]$\pm\phi_V/2[)]$.

Claim 12 (Amended) A device according to [anyone of Claim 6 or 7] Claim 7,

wherein each optical emission path [(100a, 100b)] of the first and second illuminating

assemblies [(2a, 2b)] comprises a first path length substantially parallel to the aiming axis

Z, and a second path length set, relative to the axis Z, at an angle of $+\phi_V/2$ and $-\phi_V/2$,

respectively, on the first reference plane XZ, and at an angle of $+\phi_H/2$ and $-\phi_H/2$,

respectively, on the second reference plane YZ.

Claim 13, line 2, delete "(9)";

372873

Claim 13, line 3, delete "(100a, 100b)".

Claim 14, line 3, delete "(100a, 100b)" and "(5)".

Claim 15, line 2, delete "(9)" (both occurrences);

Claim 15, line 4, delete "(5)";

Claim 15, line 5, delete "(100a, 100b)".

Claim 16 *(Amended)* A device according to [Claims 13 or 14] Claim 13, wherein the optical prism[(s) (9)] of each pair of optical prisms [(9)] is[(are)] formed integrally with the optical prism[(s) (9)] of the pair of prisms [(9)] situated on the same side with respect to the second reference plane YZ.

Claim 17 *(Amended)* A device according to [Claims 15 and 16] Claim 16, wherein the optical prisms of each pair of optical prisms are of a integral construction and are placed downstream of the converging lens on the optical emission path, wherein the pairs of optical prisms situated on the opposite side with respect to the second reference plane YZ are mutually associated by a mounting plate.

Claim 18 *(Amended)* A device according to Claim 1, further comprising a tubular element [(7a, 7b)] associated with a holding/supplying plate [(6)] for the light source [(3)] and adapted to isolate the light emitted by the source [(3)] and hold the diaphragm [(4)] and converging lens [(5)].

372873

Claim 19 *(Amended)* A device according to Claim 1, wherein the illuminating assembly [(2a, 2b)] comprises a V-like light guide [(12)] disposed, on the emission path [(100)], between the light source [(3)] and the converging lens [(5)] and effective to generate a pair of optical paths [(100)] respectively set, relative to the axis Z, at an angle of $\pm\phi_H/2$ on a second reference plane YZ.

Claim 20, line 3, delete "(1)".

Claim 21, line 3, delete "(1)".

Claim 22 *(Amended)* A device according to [Claims 20 and 21] <u>Claim 21, further comprising a means for determining the distance of the reading zone from the device,</u> wherein the means for determining said distance and orientation of the reading zone comprises:

[-] a lens for picking up the light diffused from the illuminated portion of the reading zone;

[-] means for sensing the image of the light diffused from the reading zone and picked up on the lens;

[-] means for processing the image acquired by the sensing means for calculating the distance and orientation of the reading zone according to the size of the diaphragm [(4)], the distance between the sensing means and the diaphragm [(4)], the

372873

CANINI et al
Serial No. 09/400,865

distance between the lens and the converging lens [(5)], and the size of the image

acquired by the sensing means.

Claim 23, line 2, delete "(1)".

Claim 24 *(Amended)* A method for aiming and visually indicating a reading zone,

characterized in that it comprises the steps of:

[-]   generating, by means of a light source [(3)], at least one light beam for

illuminating a portion of the reading zone along an emission path [(100a, 100b)];

[-]   selecting, by means of a shaped diaphragm [(4)], a portion of the light beam

generated by the light source [(3)];

[-]   collimating, by means of a converging lens [(5)], the portion of the shaped

light beam coming from the diaphragm [(4)];

[-]   projecting, onto the reading zone portion, the light beam picked up on the

converging lens [(5)].

Claim 27, line 1, delete "Claims 25 and 26" and insert --Claim 25--;

Claim 27, lines 11 and 12, delete "(4)";

Claim 27, line 13, delete "(5)".

Please enter newly written claims 28-30 as follows:

- 8 -

372873

-- 28. An optical device for aiming along an axis Z and visually indicating a

reading zone, comprising at least one illuminating assembly active on a reading zone

portion along an optical emission path, said at least one illuminating assembly comprises:

a light source;

a diaphragm having a preset shape for selecting a portion of the light generated by

said source;

a converging lens located downstream of the diaphragm for collimating the shaped

lights coming from the diaphragm;

two first illuminating assemblies and two second illuminating assemblies, said

assemblies disposed symmetrically relative to the aiming axis Z such that optical paths of

said assemblies form a quadrangular portion on the reading zone, wherein the optical

paths of the first illuminating assemblies are set, relative to the axis Z, at an angle of

$+\phi_V/2$ and $-\phi_V/2$, respectively, on the first reference plane XZ, and at an angle of $+\phi_H/2$ and

$-\phi_H/2$, respectively, on the second reference plane YZ and the optical paths of the second

illuminating assemblies are set, relative to the axis Z, at an angle of $+\phi_V/2$ and $-\phi_V/2$,

respectively, on the first reference plane XZ, and at an angle of $+\phi_H/2$ and $-\phi_H/2$,

respectively, on the second reference plane YZ,

said illuminating assemblies comprised of a single optical deflection prism

arranged on each optical emission path downstream of the converging lens and effective

372873

to deflect the second path lengths through angles of $\pm\phi_H/2$ and $\pm\phi_V/2$, wherein each optical

emission path of the first and second illuminating assemblies comprises a first path length

substantially parallel to the aiming axis Z, and a second path length set, relative to the

axis Z, at an angle of $+\phi_V/2$ and $-\phi_V/2$, respectively, on the first reference plane XZ, and at

an angle of $+\phi_H/2$ and $-\phi_H/2$, respectively, on the second reference plane YZ. --

-- 29. A method for aiming and visually indicating a reading zone, characterized

in that it comprises the steps of:

generating, by means of a light source, at least one light beam for illuminating a

portion of the reading zone along an emission path;

selecting, by means of a shaped diaphragm, a portion of the light beam generated

by the light source;

collimating, by means of a converging lens, the portion of the shaped light beam

coming from the diaphragm;

projecting, onto the reading zone portion, the light beam picked up on the

converging lens;

picking up, on a receiving lens, the light beam diffused from the illuminated

portion of the reading zone;

acquiring, on a sensing means, the image of the light diffused from the reading

zone and picked up on the receiving lens; and

372873

processing the acquired image to calculate the distance and orientation of the

reading zone according to the size of the diaphragm, the distance between the sensing

means and the diaphragm, the distance between the lens and the converging lens, and the

size of the image picked up on the sensing means.—

-- 30. A device according to Claim 14, wherein the optical prism of each pair of

optical prisms is formed integrally with the optical prism of the pair of prisms situated on

the same side with respect to the second reference plane YZ --.

REMARKS

The foregoing amendments are made to place the claims in better condition for

approval. Detailed apparatus and method claims clearly defining a preferred embodiment

of the present invention are also offered for consideration.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____

Stanley C. Spooner
Reg. No. 27,393

SCS:kmm
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

372873